INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Media and Communications Services **FACT SHEET**

(800) 451-6027 ***www.IN.gov/idem*** ***July 2002***

Polychlorinated Biphenyls

What are Polychlorinated Biphenyls (PCBs)?

- PCBs are man-made mixtures of synthetic, chlorinated, organic chemicals with the same basic chemical structure. There are no known natural sources of PCBs.
- PCBs are manufactured as oily liquids or solids and range from colorless to light yellow in color. They have no known smell or taste.
- Because PCBs are flame retardant, chemically stable, have a high boiling point and possess electrical insulating properties, they were used in hundreds of industrial and commercial applications. PCBs were used as coolants and lubricants in electrical, heat transfer and hydraulic equipment; as plasticizers which provided flexibility in paints, plastics and rubber products; in pigments, dyes and carbonless copy paper; and for many other applications.
- More than 1.5 billion pounds of PCBs were manufactured in the United States prior to the end of their production in 1977.
- Some commercial PCB mixtures are known in the United States by their industrial trade name, Aroclor.

How do PCBs get into the environment?

- Before 1977, PCBs entered the air, water and soil: during their manufacture, use and disposal; from accidental spills and leaks during their transport; and from fires or leaks by products containing PCBs.
- Today, PCBs can be released into the environment: from hazardous waste sites; through illegal or improper dumping of industrial wastes and consumer products; from leaks in old electrical transformers; and during the burning of some wastes in incinerators.
- Because PCBs do not readily break down in the environment, they remain for long periods of time.
- Small concentrations can be carried long distances in the air and can remain there for days.
- A small amount can dissolve in water; however, most PCBs stick to organic particles and sediments.
- PCBs also bind strongly to soil.

What happens to PCBs when they enter the environment?

- Fish and small organisms can absorb PCBs from the water and sediments in their habitat. The PCB's accumulate in the food chain when bigger fish consume the smaller fish or the organisms.
- The contamination is passed up the food chain and can reach levels thousands of times higher than the actual levels in the water.

Are PCBs dangerous to my children or me?

- PCBs have been shown to cause cancer in animals and to cause a number of serious non-cancer health effects, including effects on the immune system, reproductive system, nervous system, and endocrine system. Studies in humans provide supportive evidence for potential carcinogenic and non-carcinogenic effects of PCBs.
- The Food and Drug Administration requires testing on infant foods, eggs, milk and other dairy products, fish, shellfish, poultry and red meat to ensure they do not contain high levels of PCBs.
- Indiana has issued advisories to warn residents about any fish or fish-eating wildlife that may be contaminated with PCBs.

How might I be exposed to PCBs?

- Using old fluorescent lighting fixtures and old appliances such as television sets and refrigerators that were made more than 30 years ago. These may leak small amounts of PCBs during operation.
- Eating contaminated food, including fish, meat and dairy products containing PCBs.
- Breathing air near PCB waste sites and drinking contaminated well water.
- Repairing or maintaining PCB transformers.

What is IDEM doing about PCBs?

- Federal laws prohibit states from developing specific regulations regarding the use of PCBs.
- Indiana already regulates the disposal, clean up, and emission limits at wastewater treatment plants and smoke stacks. Drinking water is checked for concentrations of PCBs.
- To assist the U.S. EPA with compliance efforts, IDEM is conducting inspections of facilities that store or manage PCB's.

Where can I get additional information?

If you have additional questions regarding PCBs, please call the Industrial Waste Section of IDEM's Office of Land Quality at (317) 308-3108 or (800) 451-6027, visit the Agency for Toxic Substances and Disease Registry at www.atsdr.cdc.gov , or visit the U.S. Environmental Protection Agency at www.epa.gov/opptintr/pcb .